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**IMPLANTABLE MEDICAL DEVICE HAVING  
ATRIAL TACHYARRHYTHMIA PREVENTION THERAPY**

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**Abstract**

10           An implantable medical device provides atrial arrhythmia  
prevention pacing when an interatrial conduction disturbance is detected.  
The implantable medical device includes a signal processor that detects  
the interatrial conduction disturbance and a pulse generator circuit coupled  
to the detector that delivers the atrial arrhythmia prevention pacing pulses  
to the heart when the processor detects the interatrial conduction  
15   disturbance. The interatrial conduction disturbance may be a P-wave  
duration, a difference between odd and even P-waves, or a predetermined  
P-wave spectral energy distribution.